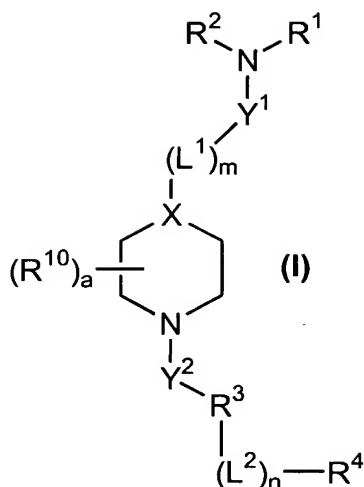


We Claim:

1. A compound of the formula (I)



5 wherein

a is an integer selected from 0 to 2;

$R^{10}$  is selected from the group consisting of  $C_{1-6}$ alkyl, aryl,  $C_3$ - $C_8$ cycloalkyl, aralkyl, heteroaryl, heteroaryl- $C_{1-6}$ alkyl, heterocycloalkyl and heterocycloalkyl- $C_{1-6}$ alkyl; wherein the aryl, cycloalkyl, aralkyl, heteroaryl or heterocycloalkyl group may be optionally substituted with one to four substituents independently selected from halogen, hydroxy,  $C_{1-6}$ alkyl, halogenated  $C_{1-6}$ alkyl,  $C_{1-6}$ alkoxy, halogenated  $C_{1-6}$ alkoxy, nitro, cyano, amino,  $C_{1-4}$ alkylamino, di( $C_{1-4}$ alkyl)amino,  $C_{1-6}$ alkylsulfonyl,  $C_{1-6}$ alkoxysulfonyl or halogenated  $C_{1-6}$ alkylsulfonyl;

15 X is selected from the group consisting of CH, C( $C_1$ - $C_6$ alkyl) and N;

m is an integer selected from 0 and 1;

$L^1$  is selected from the group consisting of  $C_1$ - $C_6$ alkyl;

$Y^1$  is selected from the group consisting of C(O) and C(S);

$R^1$  and  $R^2$  are each independently selected from the group consisting of  
20 hydrogen,  $C_1$ - $C_6$ alkyl, aryl, aralkyl,  $C_3$ - $C_8$ cycloalkyl,  $C_3$ - $C_8$ cycloalkyl- $C_{1-6}$ alkyl, heteroaryl, heteroaryl- $C_{1-6}$ alkyl, heterocycloalkyl and heterocycloalkyl- $C_{1-6}$ alkyl; wherein the aryl, aralkyl, cycloalkyl, heteroaryl or heterocycloalkyl may be optionally substituted with one or more substituents independently selected

from halogen, hydroxy, C<sub>1</sub>-C<sub>6</sub>alkyl, C<sub>1</sub>-C<sub>6</sub>alkoxy, halogenatedC<sub>1</sub>-C<sub>6</sub>alkyl, halogenatedC<sub>1</sub>-C<sub>6</sub>alkoxy, nitro, cyano, amino, C<sub>1</sub>-C<sub>4</sub>alkylamino, di(C<sub>1</sub>-C<sub>4</sub>alkyl)amino, heteroaryl or heterocycloalkyl;

- alternatively, R<sup>1</sup> and R<sup>2</sup> may be taken together with the nitrogen atom to which they are bound to form a five to six membered monocyclic ring structure selected from the group consisting of pyrrolidinyl, piperidinyl, piperazinyl, morpholinyl and thiomorpholinyl;

Y<sup>2</sup> is selected from the group consisting of CH<sub>2</sub>, C(O), C(S) and SO<sub>2</sub>;

- R<sup>3</sup> is selected from the group consisting of aryl, aralkyl, C<sub>3</sub>-C<sub>8</sub>cycloalkyl, heteroaryl, heterocycloalkyl, C<sub>3-8</sub>cycloalkyl-C<sub>1-6</sub>alkyl and heterocycloalkyl-C<sub>1-6</sub>alkyl; wherein the aryl, aralkyl, cycloalkyl, heteroaryl or heterocycloalkyl may be optionally substituted with one or more substituents independently selected from halogen, hydroxy, C<sub>1</sub>-C<sub>6</sub>alkyl, C<sub>1</sub>-C<sub>6</sub>alkoxy, halogenatedC<sub>1</sub>-C<sub>6</sub>alkyl, halogenatedC<sub>1</sub>-C<sub>6</sub>alkoxy, nitro, cyano, amino, C<sub>1</sub>-C<sub>4</sub>alkylamino, di(C<sub>1</sub>-C<sub>4</sub>alkyl)amino or -(L<sup>2</sup>)<sub>n</sub>-R<sup>4</sup>;

n is an integer selected from 0 and 1;

L<sup>2</sup> is selected from the group consisting of C<sub>1</sub>-C<sub>8</sub>alkyl, C<sub>2</sub>-C<sub>8</sub>alkenyl, C<sub>2</sub>-C<sub>8</sub>alkynyl, C(O), C(S), SO<sub>2</sub> and (A)<sub>0-1</sub>-Q-(B)<sub>0-1</sub>;

- where A and B are each independently selected from C<sub>1</sub>-C<sub>6</sub>alkyl, C<sub>2</sub>-C<sub>6</sub>alkenyl and C<sub>2</sub>-C<sub>6</sub>alkynyl;

where Q is selected from the group consisting of NR<sup>5</sup>, O and S;

- where R<sup>5</sup> is selected from the group consisting of hydrogen, C<sub>1</sub>-C<sub>6</sub>alkyl, aryl, aralkyl, C<sub>3-8</sub>cycloalkyl, heteroaryl, heterocycloalkyl, C(O)-C<sub>1</sub>-C<sub>6</sub>alkyl, C(O)-aryl, C(O)-aralkyl, C(O)-heteroaryl, C(O)-heterocycloalkyl, SO<sub>2</sub>-C<sub>1</sub>-C<sub>6</sub>alkyl, SO<sub>2</sub>-aryl, SO<sub>2</sub>-aralkyl, SO<sub>2</sub>-heteroaryl, SO<sub>2</sub>-heterocycloalkyl and -CHR<sup>6</sup>R<sup>7</sup>;

- wherein the aryl, aralkyl, cycloalkyl, heteroaryl or heterocycloalkyl may be optionally substituted with one or more substituents independently selected from halogen, hydroxy, C<sub>1</sub>-C<sub>6</sub>alkyl, C<sub>1</sub>-C<sub>6</sub>alkoxy, halogenatedC<sub>1</sub>-C<sub>6</sub>alkyl, halogenatedC<sub>1</sub>-C<sub>6</sub>alkoxy, nitro, cyano, amino, C<sub>1</sub>-C<sub>4</sub>alkylamino or di(C<sub>1</sub>-C<sub>4</sub>alkyl)amino;

where R<sup>6</sup> and R<sup>7</sup> are each independently selected from the group consisting of hydrogen, C<sub>1-6</sub>alkyl, aryl, aralkyl, C<sub>3-8</sub>cycloalkyl, heteroaryl,

heterocycloalkyl, C(O)-C<sub>1-6</sub>alkyl, C(O)aryl, C(O)-C<sub>3-8</sub>cycloalkyl, C(O)-heteroaryl and C(O)-heterocycloalkyl; wherein the aryl, aralkyl, cycloalkyl, heteroaryl or heterocycloalkyl may be optionally substituted with one or more substituents independently selected from halogen, hydroxy, C<sub>1</sub>-C<sub>6</sub>alkyl, C<sub>1</sub>-C<sub>6</sub>alkoxy, halogenatedC<sub>1</sub>-C<sub>6</sub>alkyl, halogenatedC<sub>1</sub>-C<sub>6</sub>alkoxy, nitro, cyano, amino, C<sub>1</sub>-C<sub>4</sub>alkylamino or di(C<sub>1</sub>-C<sub>4</sub>alkyl)amino;

R<sup>4</sup> is selected from the group consisting of aryl, aralkyl, C<sub>3</sub>-C<sub>8</sub>cycloalkyl, heteroaryl and heterocycloalkyl; wherein the aryl, aralkyl, cycloalkyl, heteroaryl or heterocycloalkyl may be optionally substituted with one or more substituents independently selected from halogen, hydroxy, C<sub>1</sub>-C<sub>6</sub>alkyl, C<sub>1</sub>-C<sub>6</sub>alkoxy, halogenatedC<sub>1</sub>-C<sub>6</sub>alkyl, halogenatedC<sub>1</sub>-C<sub>6</sub>alkoxy, nitro, cyano, amino, C<sub>1</sub>-C<sub>4</sub>alkylamino or di(C<sub>1</sub>-C<sub>4</sub>alkyl)amino;

provided that when a is 0; X is CH; m is 1; L<sup>1</sup> is CH<sub>2</sub>; R<sup>3</sup> is phenyl; n is 0; and R<sup>4</sup> is phenyl, wherein the phenyl group may be optionally substituted with one substituent selected from halogen, hydroxy, C<sub>1</sub>-C<sub>6</sub>alkyl, C<sub>1</sub>-C<sub>6</sub>alkoxy, halogenatedC<sub>1</sub>-C<sub>6</sub>alkyl, halogenatedC<sub>1</sub>-C<sub>6</sub>alkoxy, nitro, cyano, amino, C<sub>1</sub>-C<sub>4</sub>alkylamino or di(C<sub>1</sub>-C<sub>4</sub>alkyl)amino, and wherein the R<sup>4</sup> group is bonded to the R<sup>3</sup> group in the para position;

then R<sup>1</sup> and R<sup>2</sup> are each independently selected from the group consisting of hydrogen, C<sub>2</sub>-C<sub>6</sub>alkyl, aryl, aralkyl, C<sub>3</sub>-C<sub>8</sub>cycloalkyl, C<sub>3</sub>-C<sub>8</sub>cycloalkyl-C<sub>1-6</sub>alkyl, heteroaryl, heteroaryl-C<sub>1-6</sub>alkyl, heterocycloalkyl and heterocycloalkyl-C<sub>1-6</sub>alkyl; wherein the aryl, aralkyl, cycloalkyl, heteroaryl or heterocycloalkyl may be optionally substituted with one or more substituents independently selected from halogen, hydroxy, C<sub>1</sub>-C<sub>6</sub>alkyl, C<sub>1</sub>-C<sub>6</sub>alkoxy, halogenatedC<sub>1</sub>-C<sub>6</sub>alkyl, halogenatedC<sub>1</sub>-C<sub>6</sub>alkoxy, nitro, cyano, amino, C<sub>1</sub>-C<sub>4</sub>alkylamino, di(C<sub>1</sub>-C<sub>4</sub>alkyl)amino, heteroaryl or heterocycloalkyl;

alternatively, R<sup>1</sup> and R<sup>2</sup> may be taken together with the nitrogen atom to which they are bound to form a five to six membered monocyclic ring structure selected from the group consisting of pyrrolidinyl, piperidinyl, piperazinyl, morpholinyl and thiomorpholinyl;

provided further that when a is 0; X is N; m is 1; L<sup>1</sup> is CH<sub>2</sub>; Y<sup>2</sup> is C(O) or C(S); n is 1; L<sup>2</sup> is O; R<sup>4</sup> is phenyl, wherein the phenyl may be optionally substituted with one or more substituents independently selected from halogen, hydroxy, C<sub>1</sub>-C<sub>6</sub>alkyl, C<sub>1</sub>-C<sub>6</sub>alkoxy, halogenatedC<sub>1</sub>-C<sub>6</sub>alkyl, halogenatedC<sub>1</sub>-C<sub>6</sub>alkoxy, nitro, cyano, amino, C<sub>1</sub>-C<sub>4</sub>alkylamino or di(C<sub>1</sub>-C<sub>4</sub>alkyl)amino; and R<sup>1</sup> and R<sup>2</sup> are each independently selected from the group consisting of hydrogen and C<sub>1</sub>-6alkyl;

then R<sup>3</sup> is selected from the group consisting of aryl, aralkyl, C<sub>3</sub>-C<sub>8</sub>cycloalkyl, heteroaryl other than thienopyridinyl, heterocycloalkyl, C<sub>3</sub>-C<sub>8</sub>cycloalkyl-C<sub>1-6</sub>alkyl and heterocycloalkyl-C<sub>1-6</sub>alkyl; wherein the aryl, aralkyl, cycloalkyl, heteroaryl or heterocycloalkyl may be optionally substituted with one of more substituents independently selected from halogen, hydroxy, C<sub>1</sub>-C<sub>6</sub>alkyl, C<sub>1</sub>-C<sub>6</sub>alkoxy, halogenatedC<sub>1</sub>-C<sub>6</sub>alkyl, halogenatedC<sub>1</sub>-C<sub>6</sub>alkoxy, nitro, cyano, amino, C<sub>1</sub>-C<sub>4</sub>alkylamino, di(C<sub>1</sub>-C<sub>4</sub>alkyl)amino or -(L<sup>2</sup>)<sub>n</sub>-R<sup>4</sup>;

provided further that when a is 0; X is N; m is 1; L<sup>1</sup> is CH<sub>2</sub>; Y<sup>2</sup> is C(O) or C(S); n is 0; R<sup>1</sup> and R<sup>2</sup> are taken together with the nitrogen to which they are bound to form pyrrolidinyl; and R<sup>4</sup> is pyridyl;

then R<sup>3</sup> is selected from the group consisting of aryl, aralkyl, C<sub>3</sub>-C<sub>8</sub>cycloalkyl, heteroaryl, heterocycloalkyl other than thiazolidinyl; C<sub>3</sub>-C<sub>8</sub>cycloalkyl-C<sub>1-6</sub>alkyl and heterocycloalkyl-C<sub>1-6</sub>alkyl; wherein the aryl, aralkyl, cycloalkyl, heteroaryl or heterocycloalkyl may be optionally substituted with one of more substituents independently selected from halogen, hydroxy, C<sub>1</sub>-C<sub>6</sub>alkyl, C<sub>1</sub>-C<sub>6</sub>alkoxy, halogenatedC<sub>1</sub>-C<sub>6</sub>alkyl, halogenatedC<sub>1</sub>-C<sub>6</sub>alkoxy, nitro, cyano, amino, C<sub>1</sub>-C<sub>4</sub>alkylamino, di(C<sub>1</sub>-C<sub>4</sub>alkyl)amino or -(L<sup>2</sup>)<sub>n</sub>-R<sup>4</sup>;

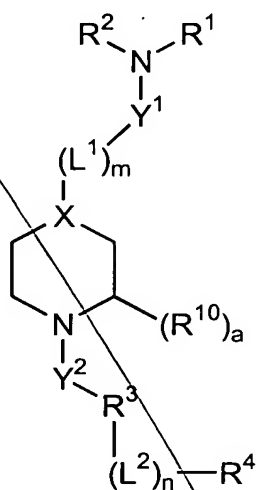
provided further that when R<sup>1</sup> and R<sup>2</sup> are each independently selected from the group consisting of hydrogen and C<sub>1-6</sub>alkyl, or R<sup>1</sup> and R<sup>2</sup> are taken together with the nitrogen atom to which they are bound to form morpholinyl or pyrrolidinyl; a is 0; X is N; m is 1; L<sup>1</sup> is CH<sub>2</sub>; Y<sup>2</sup> is C(O) or C(S); n is 0; and R<sup>4</sup> is phenyl, wherein the phenyl is optionally substituted with one or more

substituents independently selected from C<sub>1</sub>-C<sub>6</sub>alkyl, C<sub>1</sub>-C<sub>6</sub>alkoxy, halogenatedC<sub>1</sub>-C<sub>6</sub>alkyl, halogenatedC<sub>1</sub>-C<sub>6</sub>alkoxy or nitro;

then R<sup>3</sup> is selected from the group consisting of aryl, aralkyl, heteroaryl, heterocycloalkyl, C<sub>3-8</sub>cycloalkyl-C<sub>1-6</sub>alkyl and heterocycloalkyl-C<sub>1-6</sub>alkyl; wherein the aryl, aralkyl, cycloalkyl, heteroaryl or heterocycloalkyl may be optionally substituted with one substituent selected from halogen, hydroxy, C<sub>1</sub>-C<sub>6</sub>alkyl, C<sub>1</sub>-C<sub>6</sub>alkoxy, halogenatedC<sub>1</sub>-C<sub>6</sub>alkyl, halogenatedC<sub>1</sub>-C<sub>6</sub>alkoxy, nitro, cyano, amino, C<sub>1</sub>-C<sub>4</sub>alkylamino or di(C<sub>1</sub>-C<sub>4</sub>alkyl)amino;

and pharmaceutically acceptable salts thereof.

2. A compound as in Claim 1 of the formula



wherein

a is 0 to 1;

R<sup>10</sup> is selected from the group consisting of C<sub>1</sub>-C<sub>4</sub>alkyl and aralkyl;

X is selected from the group consisting of CH, C(methyl) and N;

m is an integer selected from 0 or 1;

L<sup>1</sup> is selected from the group consisting of C<sub>1</sub>-C<sub>4</sub>alkyl;

Y<sup>1</sup> is C(O);

R<sup>1</sup> and R<sup>2</sup> are each independently selected from the group consisting of hydrogen, C<sub>1-4</sub>alkyl, aryl, aralkyl, C<sub>3-8</sub>cycloalkyl-C<sub>1-4</sub>alkyl, heteroaryl and heterocycloalkyl; wherein the aryl, aralkyl or heteroaryl may be optionally

substituted with one to two substituents independently selected from halogen, hydroxy, C<sub>1</sub>-C<sub>4</sub>alkyl, C<sub>1</sub>-C<sub>4</sub>alkoxy, trifluoromethyl, trifluoromethoxy, C<sub>1</sub>-C<sub>4</sub>alkylamino, di(C<sub>1</sub>-C<sub>4</sub>alkyl)amino or heterocycloalkyl;

alternatively, R<sup>1</sup> and R<sup>2</sup> may be taken together with the nitrogen atom to which they are bound to form a five to six membered monocyclic ring structure selected from the group consisting of pyrrolidiny, piperidiny, piperazinyl, morpholinyl and thiomorpholinyl; Y<sup>2</sup> is C(O);

R<sup>3</sup> is selected from the group consisting of aryl and heteroaryl; wherein the aryl or heteroaryl may be optionally substituted with one to two substituents independently selected from C<sub>1</sub>-C<sub>4</sub>alkyl, trifluoromethyl or  $-(L^2)_n-R^4$ ;

n is an integer selected from 0 or 1;

L<sup>2</sup> is selected from the group consisting of C<sub>1</sub>-C<sub>6</sub>alkyl, C<sub>2</sub>-C<sub>6</sub>alkenyl, C<sub>2</sub>-C<sub>6</sub>alkynyl and (A)<sub>0-1</sub>-Q-(B)<sub>0-1</sub>;

where A and B are each independently selected from C<sub>1</sub>-C<sub>4</sub>alkyl;

where Q is selected from the group consisting of NR<sup>5</sup>, O and S;

where R<sup>5</sup> is selected from the group consisting of hydrogen, C<sub>1</sub>-C<sub>4</sub>alkyl, C(O)-C<sub>1</sub>-C<sub>6</sub>alkyl, C(O)-aryl, C(O)-aralkyl, C(O)-heteroaryl, C(O)-heterocycloalkyl and -CHR<sup>6</sup>R<sup>7</sup>; wherein the aryl, aralkyl, cycloalkyl, heteroaryl or heterocycloalkyl may be optionally substituted with one to two substituents independently selected from halogen, C<sub>1</sub>-C<sub>4</sub>alkyl, C<sub>1</sub>-C<sub>4</sub>alkoxy, trifluoromethyl, trifluoromethoxy, nitro, cyano, amino, C<sub>1</sub>-C<sub>4</sub>alkylamino or di(C<sub>1</sub>-C<sub>4</sub>alkyl)amino;

where R<sup>6</sup> and R<sup>7</sup> are each independently selected from the group consisting of hydrogen, C<sub>1-4</sub>alkyl, aryl, aralkyl, C<sub>3-8</sub>cycloalkyl, heteroaryl, heterocycloalkyl, C(O)-C<sub>1-6</sub>alkyl, C(O)aryl, C(O)-C<sub>3-8</sub>cycloalkyl, C(O)-heteroaryl and C(O)-heterocycloalkyl; wherein the aryl, aralkyl, cycloalkyl, heteroaryl or heterocycloalkyl may be optionally substituted with one to two substituents independently selected from halogen, hydroxy, C<sub>1</sub>-C<sub>4</sub>alkyl, C<sub>1</sub>-C<sub>4</sub>alkoxy, trifluoromethyl, trifluoromethoxy, nitro, cyano, amino, C<sub>1</sub>-C<sub>4</sub>alkylamino or di(C<sub>1</sub>-C<sub>4</sub>alkyl)amino;

R<sup>4</sup> is selected from the group consisting of aryl, heteroaryl and heterocycloalkyl; wherein the aryl group may be optionally substituted with one

to two substituents independently selected from halogen, hydroxy, C<sub>1</sub>-C<sub>4</sub>alkyl, C<sub>1-4</sub>alkoxy, trifluoromethyl or amino;

provided that when a is 0; X is CH; m is 1; L<sup>1</sup> is CH<sub>2</sub>; R<sup>3</sup> is phenyl; n is 0; and R<sup>4</sup> is phenyl, wherein the phenyl group may be optionally substituted with one substituent selected from halogen, hydroxy, C<sub>1</sub>-C<sub>4</sub>alkyl, C<sub>1</sub>-C<sub>4</sub>alkoxy, trifluoromethyl or amino, and wherein the R<sup>4</sup> group is bonded to the R<sup>3</sup> group in the para position;

then R<sup>1</sup> and R<sup>2</sup> are each independently selected from the group consisting of hydrogen, C<sub>2-4</sub>alkyl, aryl, aralkyl, C<sub>3-8</sub>cycloalkyl-C<sub>1</sub>-C<sub>4</sub>alkyl, heteroaryl and heterocycloalkyl; wherein the aryl, aralkyl or heteroaryl may be optionally substituted with one to two substituents independently selected from halogen, hydroxy, C<sub>1</sub>-C<sub>4</sub>alkyl, C<sub>1</sub>-C<sub>4</sub>alkoxy, trifluoromethyl, trifluoromethoxy, C<sub>1</sub>-C<sub>4</sub>alkylamino, di(C<sub>1</sub>-C<sub>4</sub>alkyl)amino or heterocycloalkyl;

alternatively, R<sup>1</sup> and R<sup>2</sup> may be taken together with the nitrogen atom to which they are bound to form a five to six membered monocyclic ring structure selected from the group consisting of pyrrolidinyl, piperidinyl, piperazinyl, morpholinyl and thiomorpholinyl;

provided further that when a is 0; X is N; m is 1; L<sup>1</sup> is CH<sub>2</sub>; Y<sup>2</sup> is C(O); n is 1; L<sup>2</sup> is O; R<sup>4</sup> is phenyl, wherein the phenyl may be optionally substituted with one to two substituents independently selected from halogen, hydroxy, C<sub>1</sub>-C<sub>4</sub>alkyl, C<sub>1</sub>-C<sub>4</sub>alkoxy, trifluoromethyl or amino; and R<sup>1</sup> and R<sup>2</sup> are each independently selected from the group consisting of hydrogen and C<sub>1-4</sub>alkyl;

then R<sup>3</sup> is selected from the group consisting of aryl and heteroaryl other than thienopyridinyl; wherein the aryl or heteroaryl may be optionally substituted with one to two substituents independently selected from C<sub>1</sub>-C<sub>4</sub>alkyl, trifluoromethyl or -(L<sup>2</sup>)<sub>n</sub>-R<sup>4</sup>;

provided further that when R<sup>1</sup> and R<sup>2</sup> are each independently selected from the group consisting of hydrogen and C<sub>1-4</sub>alkyl, or R<sup>1</sup> and R<sup>2</sup> are taken together with the nitrogen atom to which they are bound to form morpholinyl or

pyrrolidinyl; a is 0; X is N; m is 1; L<sup>1</sup> is CH<sub>2</sub>; Y<sup>2</sup> is C(O); n is 0; and R<sup>4</sup> is phenyl, wherein the phenyl is optionally substituted with one or two substituents independently selected from C<sub>1</sub>-C<sub>4</sub>alkyl, C<sub>1</sub>-C<sub>4</sub>alkoxy or trifluoromethyl;

then R<sup>3</sup> is selected from the group consisting of aryl and heteroaryl;

5 wherein the aryl or heteroaryl may be optionally substituted with one substituent selected from C<sub>1</sub>-C<sub>4</sub>alkyl or trifluoromethyl; and pharmaceutically acceptable salts thereof.

3. A compound as in Claim 2 wherein

10 X is selected from the group consisting of CH and N; m is 1;

R<sup>1</sup> is selected from the group consisting of hydrogen and C<sub>1-4</sub>alkyl;

R<sup>2</sup> is selected from the group consisting of C<sub>1-4</sub>alkyl, aryl, aralkyl, C<sub>3-8</sub>cycloalkyl-C<sub>1-4</sub>alkyl and heteroaryl; wherein the aryl or aralkyl may be  
15 optionally substituted with one to two substituents independently selected from halogen, hydroxy, C<sub>1</sub>-C<sub>4</sub>alkyl, C<sub>1</sub>-C<sub>4</sub>alkoxy, trifluoromethyl, trifluoromethoxy, di(C<sub>1</sub>-C<sub>4</sub>alkyl)amino or heterocycloalkyl;

alternatively, R<sup>1</sup> and R<sup>2</sup> may be taken together with the nitrogen atom to which they are bound to form a five to six membered monocyclic ring structure  
20 selected from the group consisting of pyrrolidinyl, piperidinyl and morpholinyl;

R<sup>3</sup> is selected from the group consisting of aryl and heteroaryl; wherein the aryl or heteroaryl may be optionally substituted with a substituent selected from C<sub>1</sub>-C<sub>4</sub>alkyl or trifluoromethyl;

L<sup>2</sup> is selected from the group consisting of C<sub>1</sub>-C<sub>4</sub>alkyl, C<sub>2</sub>-C<sub>6</sub>alkenyl, C<sub>2</sub>-C<sub>6</sub>alkynyl, NH-C<sub>1-4</sub>alkyl, C<sub>1-4</sub>alkyl-N(C<sub>1-4</sub>alkyl)-C<sub>1-4</sub>alkyl and C<sub>1-4</sub>alkyl-N(C(O)C<sub>1-4</sub>alkyl)-C<sub>1-4</sub>alkyl;  
25

provided that when a is 0; X is CH; L<sup>1</sup> is CH<sub>2</sub>; R<sup>3</sup> is phenyl; n is 0; and R<sup>4</sup> is phenyl, wherein the phenyl group may be optionally substituted with one  
30 substituent selected from halogen, hydroxy, C<sub>1</sub>-C<sub>4</sub>alkyl, C<sub>1</sub>-C<sub>4</sub>alkoxy, trifluoromethyl or amino, and wherein the R<sup>4</sup> group is bonded to the R<sup>3</sup> group in the para position;



then R<sup>1</sup> is selected from the group consisting of hydrogen and C<sub>2-4</sub>alkyl;  
 R<sup>2</sup> is selected from the group consisting of C<sub>2-4</sub>alkyl, aryl, aralkyl, C<sub>3-8</sub>cycloalkyl-C<sub>1-4</sub>alkyl and heteroaryl; wherein the aryl or aralkyl may be optionally substituted with one to two substituents independently selected from  
 5 halogen, hydroxy, C<sub>1-4</sub>alkyl, C<sub>1-4</sub>alkoxy, trifluoromethyl, trifluoromethoxy, di(C<sub>1-4</sub>alkyl)amino or heterocycloalkyl;

alternatively, R<sup>1</sup> and R<sup>2</sup> are taken together with the nitrogen atom to which they are bound to form a five to six membered monocyclic ring structure selected from the group consisting of pyrrolidinyl, piperidinyl and morpholinyl;

and pharmaceutically acceptable salts thereof.

4. A compound as in Claim 3 wherein

R<sup>10</sup> is selected from the group consisting of methyl and benzyl;

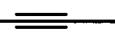
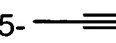
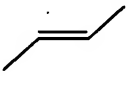
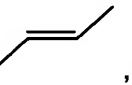
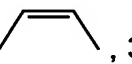
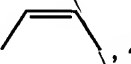
L<sup>1</sup> is selected from the group consisting of CH<sub>2</sub> and CH<sub>2</sub>CH<sub>2</sub>;


R<sup>2</sup> is selected from the group consisting of -CH<sub>2</sub>-(3-trifluoromethylphenyl), -CH<sub>2</sub>-cyclohexyl, -CH<sub>2</sub>-(3,5-dimethoxyphenyl), -CH<sub>2</sub>-(4-trifluoromethylphenyl), -CH<sub>2</sub>-(3,5-ditrifluoromethylphenyl), 3-trifluoromethoxyphenyl, -CH<sub>2</sub>-(4-dimethylaminophenyl), phenyl, benzyl, 2-fluorophenyl, 4-fluorophenyl, 2,4-difluorophenyl, 2,6-difluorophenyl, 4-hydroxyphenyl, 4-dimethylamino-phenyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, 4-pyridyl-methyl, 4-morpholinyl-phenyl, 4-piperidinyl-phenyl, methyl, isopropyl, 4-methoxyphenyl, 4-trifluoromethylphenyl, 2-pyrimidinyl, 4-pyrimidinyl, 5-quinolinyl, 6-quinolinyl, and 8-quinolinyl;

alternatively, R<sup>1</sup> and R<sup>2</sup> are taken together with the nitrogen atom to which they are bound to form a five to six membered monocyclic ring structure selected from the group consisting of pyrrolidinyl, piperidinyl and morpholinyl;

R<sup>3</sup> is selected from the group consisting of phenyl, methylphenyl, trifluoromethylphenyl, 4-oxazolyl and 3-(2-trifluoromethyl-furyl);

L<sup>2</sup> is selected from the group consisting of 2-, 3-,

4-, 5-, 2-, 3-, 2-, 3-, 4-

, 2-CH<sub>2</sub>CH<sub>2</sub>, 3-CH<sub>2</sub>-CH<sub>2</sub>, 4-CH<sub>2</sub>-CH<sub>2</sub>, NH-CH<sub>2</sub>, CH<sub>2</sub>-N(CH<sub>3</sub>)-CH<sub>2</sub>, CH<sub>2</sub>-N(CH<sub>3</sub>)-CH<sub>2</sub>CH<sub>2</sub>, CH<sub>2</sub>-N(C(O)CH<sub>3</sub>)-CH<sub>2</sub> and CH<sub>2</sub>-N(C(O)CH<sub>3</sub>)-CH<sub>2</sub>CH<sub>2</sub>;

R<sup>4</sup> is selected from the group consisting of phenyl, 1-naphthyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, 3-hydroxyphenyl, 2-methylphenyl, 3-aminophenyl, 4-methoxyphenyl, 4-chlorophenyl, 2-thienyl, 3-thienyl, 3,5-di(trifluoromethyl)-phenyl, 1-imidazolyl, 2-benzimidazolyl, 1-pyrrolidinyl, 2-furyl and 2-tetrahydrofuryl;

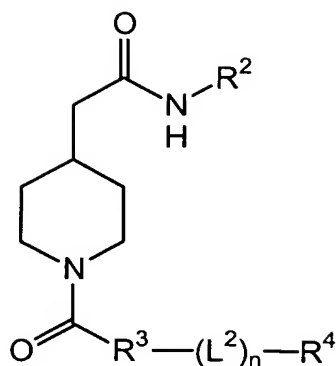
provided that when a is 0; X is CH; L<sup>1</sup> is CH<sub>2</sub>; R<sup>3</sup> is phenyl; n is 0; and R<sup>4</sup> is phenyl, 4-chlorophenyl, 3-hydroxyphenyl, 2-methylphenyl, 4-methoxyphenyl or 3-aminophenyl; and wherein the R<sup>4</sup> group is bonded to the R<sup>3</sup> group in the para position;

then R<sup>1</sup> is selected from the group consisting of hydrogen and C<sub>2-4</sub>alkyl;

R<sup>2</sup> is selected from the group consisting of -CH<sub>2</sub>-(3-trifluoromethylphenyl), -CH<sub>2</sub>-cyclohexyl, -CH<sub>2</sub>-(3,5-dimethoxyphenyl), -CH<sub>2</sub>-(4-trifluoromethylphenyl), -CH<sub>2</sub>-(3,5-ditrifluoromethylphenyl), 3-trifluoromethoxyphenyl, -CH<sub>2</sub>-(4-dimethylaminophenyl), phenyl, benzyl, 2-fluorophenyl, 4-fluorophenyl, 2,4-difluorophenyl, 2,6-difluorophenyl, 4-hydroxyphenyl, 4-dimethylamino-phenyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, 4-pyridyl-methyl, 4-morpholinyl-phenyl, 4-piperidinyl-phenyl, isopropyl, 4-methoxyphenyl, 4-trifluoromethylphenyl, 2-pyrimidinyl, 4-pyrimidinyl, 5-quinolinyl, 6-quinolinyl, and 8-quinolinyl;





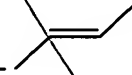
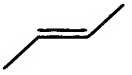
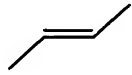


alternatively, R<sup>1</sup> and R<sup>2</sup> are taken together with the nitrogen atom to which they are bound to form a five to six membered monocyclic ring structure selected from the group consisting of pyrrolidinyl, piperidinyl and morpholinyl; and pharmaceutically acceptable salts thereof.

5. A compound as in Claim 4 of the formula



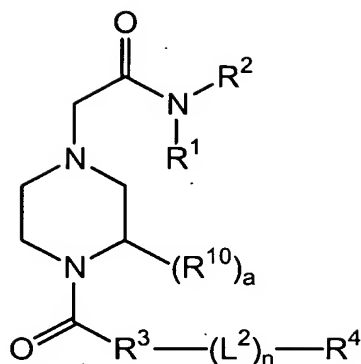
wherein

$R^2$  is selected from the group consisting of  $-\text{CH}_2$ -(3-trifluoromethylphenyl),  $-\text{CH}_2$ -cyclohexyl,  $-\text{CH}_2$ -(3,5-dimethoxyphenyl),  $-\text{CH}_2$ -(4-trifluoromethylphenyl),  $-\text{CH}_2$ -(3,5-ditrifluoromethylphenyl),  $-\text{CH}_2$ -(4-dimethylaminophenyl), phenyl, 2-fluorophenyl, 4-fluorophenyl, 2,4-difluorophenyl, 2,6-difluorophenyl, 3-trifluoromethylphenyl, 4-trifluoromethylphenyl, 4-hydroxyphenyl, 4-methoxyphenyl, benzyl, 3-pyridyl, 4-pyridyl, 2-pyrimidinyl, 4-pyrimidinyl, 5-quinoliny, 6-quinoliny, 8-quinoliny, 4-(dimethylamino)-phenyl, 4-morpholiny-phenyl, 4-pyridyl-methyl, and 4-piperidinyl-phenyl;

$L^2$  is selected from the group consisting of 2-, 3-, 4-, 5-, 2-, 3-, 4-, 2-, 3-, 2- $\text{CH}_2\text{CH}_2$ , 3- $\text{CH}_2\text{CH}_2$ , 4- $\text{CH}_2\text{CH}_2$ ,  $\text{NH-CH}_2$ , 4-( $\text{CH}_2\text{-N(CH}_3\text{)-CH}_2$ ), 4-( $\text{CH}_2\text{-N(CH}_3\text{)-CH}_2\text{CH}_2$ ), 4-( $\text{CH}_2\text{-N(C(O)CH}_3\text{)-CH}_2$ ) and 4-( $\text{CH}_2\text{-N(C(O)CH}_3\text{)-CH}_2$ );

$R^4$  is selected from the group consisting of phenyl, 3-phenyl; 5-phenyl, 4-chlorophenyl, 3-hydroxyphenyl, 3-(2-methylphenyl), 3-(3-aminophenyl), 2-pyridyl, 3-pyridyl, 3-(3-pyridyl), 4-pyridyl, 3-(3-thienyl), 3,5-di(trifluoromethyl)phenyl, 1-pyrrolidinyl, 2-furyl, 1-naphthyl, 2-thienyl, 1-imidazolyl, 2-benzimidazolyl and 2-tetrahydrofuryl; and pharmaceutically acceptable salts thereof.

6. A compound as in Claim 4 of the formula



wherein;

$R^1$  is selected from the group consisting of hydrogen and methyl;

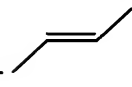
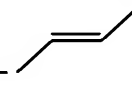
$R^2$  is selected from the group consisting of isopropyl, phenyl, 2-fluorophenyl, 4-fluorophenyl, 2,4-difluorophenyl, 2,6-difluorophenyl, 3-pyridyl, 1-pyrrolidinyl, 4-dimethylamino-phenyl and 4-morpholinyl-phenyl;

alternatively  $R^1$  and  $R^2$  are taken together with the nitrogen atom to which they are bound to form a five to six membered ring structure selected from the group consisting of 1-pyrrolidinyl, 1-piperidinyl and 1-morpholinyl;

$R^3$  is selected from the group consisting of phenyl and 3-(2-trifluoromethyl-furyl);

$n$  is an integer from 0 to 1;

$L^2$  is selected from the group consisting of 2-, 3-,

2-, 3-, 3-CH<sub>2</sub>-CH<sub>2</sub> and NH-CH<sub>2</sub>;

$R^4$  is selected from the group consisting of phenyl, 4-methoxyphenyl, 4-chlorophenyl, 2-pyridyl, 3-pyridyl, 4-pyridyl and 3,5-di(trifluoromethyl)phenyl; and pharmaceutically acceptable salts thereof.

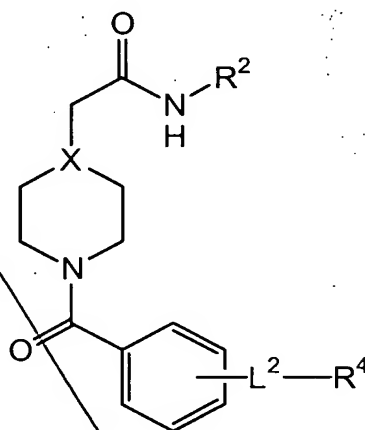
7. A compound as in Claim 4 selected from the group consisting of *N*-phenyl-1-[3-(2-pyridinylethynyl)benzoyl]-4-piperidineacetamide; *N*-(2,4-difluorophenyl)-1-[3-(2-pyridinylethynyl)benzoyl]-4-piperidineacetamide;

*N*-phenyl-4-[2-[(*E*)-2-(2-pyridinyl)ethenyl]benzoyl]-1-piperazineacetamide;

*N*-phenyl-4-[3-(2-pyridinylethynyl)benzoyl]-1-piperazineacetamide;

5 *N*-(4-hydroxyphenyl)-1-[3-(2-pyridinylethynyl)benzoyl]-4-piperidineacetamide;  
and pharmaceutically acceptable salts thereof.

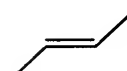
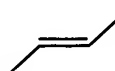
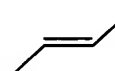
8. A compound as in Claim 4 of the formula



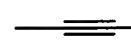
10 X is selected from the group consisting of CH and N;

R<sup>2</sup> is selected from the group consisting of phenyl, 4-hydroxyphenyl, 2-fluorophenyl, 4-fluorophenyl, and 2,4-difluorophenyl;

L<sup>2</sup> is selected from the group consisting of 3-, 4-, 2-

, 3-, 4-, 4-(CH<sub>2</sub>-N(CH<sub>3</sub>)-CH<sub>2</sub>CH<sub>2</sub>), 4-(CH<sub>2</sub>-N(CH<sub>3</sub>)-CH<sub>2</sub>) and 3-NH-CH<sub>2</sub>;

R<sup>4</sup> is selected from the group consisting of 2-pyridyl, 4-pyridyl, 4-pyrrolidinyl, 2-furyl, 1-naphthyl and 3,5-di(trifluoromethyl)phenyl;  
and pharmaceutically acceptable salts thereof.

20 9. A compound as in Claim 8 wherein X is CH; R<sup>2</sup> is phenyl; L<sup>2</sup> is 3-; R<sup>4</sup> is 2-pyridyl and pharmaceutically acceptable salts thereof.

10. A pharmaceutical composition comprising a pharmaceutically acceptable carrier and a compound of Claim 1.

11. A pharmaceutical composition made by mixing a compound of Claim 1 and a pharmaceutically acceptable carrier.

12. A process for making a pharmaceutical composition comprising mixing a compound of Claim 1 and a pharmaceutically acceptable carrier.

13. A method of treating a nervous system disorder in a subject in need thereof comprising administering to the subject a therapeutically effective amount of the compound of Claim 1.

14. The method of Claim 10, wherein the nervous system disorder is selected from the group consisting of depression, dementia, schizophrenia, bipolar disorders, anxiety, emesis, acute pain, neuropathic pain, itching, migraine and movement disorders.

15. A method of treating nervous system a disorder in a subject in need thereof comprising administering to the subject a therapeutically effective amount of the composition of Claim 10.

16. A method of treating a nervous system disorder selected from the group consisting of depression and anxiety in a subject in need thereof comprising administering to the subject a therapeutically effective amount of the compound of Claim 1.

17. A method of treating a nervous system disorder selected from the group consisting of depression and anxiety in a subject in need thereof comprising administering to the subject a therapeutically effective amount of the pharmaceutical composition of Claim 10.

Sub  
B  
comp.

1001-1001

18. A method of treating a nervous system disorder selected from the group consisting of depression and anxiety in a subject in need thereof comprising administering to the subject a therapeutically effective amount of the compound of Claim 9.

10001725 102201